

VII. WHAT IS CLAIMED IS:

Claim 1. An automobile pneumatic jack assembly comprising:
at least one pneumatic cylinder assembly capable of lifting a vehicle to a suitable height to allow repairs to tires and other vehicle parts;

at least one compressor,

at least one distribution manifold assembly, and

electrical controls for controlling the operation of said pneumatic jack assembly.

Claim 2. An automobile pneumatic jack assembly according to Claim 1 wherein
said pneumatic cylinder assembly comprises two to four pneumatic cylinders
mounted at various locations on an automobile chassis having a frame.

Claim 3. An automobile pneumatic jack assembly according to Claim 2 wherein
said pneumatic cylinder assemblies are mounted to said automobile chassis through said
frame.

welding, mechanical fasteners, or any other suitable means.

Claim 4. An automobile pneumatic jack assembly according to claim 2 wherein
said pneumatic cylinder assemblies are mounted to said automobile chassis through said
frame by welding, brazing or mechanical fasteners.

Claim 5. An automobile pneumatic jack assembly according to claim 1 wherein
said air compressor uses vehicle electrical power and is capable of providing adequate air
pressure to lift a vehicle to a suitable height to allow repairs to tires and other automobile
parts.

Claim 6. An automobile pneumatic jack assembly according to claim 5 wherein
said air compressor is mounted in a location within the vehicle permitting efficient routing
of pneumatic and electrical supplies.

Claim 7. An automobile pneumatic jack assembly according to claim 1 wherein
said distribution manifold assembly accepts air pressure from said air compressor and
delivers it to said pneumatic cylinders via pneumatic solenoids. -6-

Claim 8. An automobile pneumatic jack assembly according to claim 7 wherein said distribution manifold assembly contains a plurality of said pneumatic solenoids, one for each of the said pneumatic cylinders.

Claim 9. An automobile pneumatic jack assembly according to claim 8 wherein each of the said pneumatic solenoids operate on electrical power and directs air pressure to its corresponding pneumatic cylinder.

Claim 10. An automobile pneumatic jack assembly according to claim 1 wherein said electrical controls comprise a power relay, a control box, and an electrical interlock switch.

Claim 11. An electrical control system for an automobile pneumatic jack assembly comprising:

- a power relay;
- a control box; and
- an electrical interlock switch.

wherein said electrical interlock switch is activated when the vehicle's parking brake is applied, ensuring the vehicle is secured prior to system operation.

Claim 12. An electrical control system for an automobile pneumatic jack assembly according to claim 11 wherein said control box contains switching and indicating circuitry for the operator.

Claim 13. An electrical control system for an automobile pneumatic jack assembly according to claim 12 wherein said control box contains a key switch that provides extra safety measures to ensure the system is not accidentally activated.

Claim 14. An electrical control system An automobile pneumatic jack assembly according to claim 13 wherein said control box contains a plurality of three-position rocker switches to direct electrical power to said pneumatic solenoids when activated by the operator. -7-

Claim 15. An electrical control system for an automobile pneumatic jack assembly according to claim 14 wherein said control box contains a light emitting diode (LED) that illuminates when power is applied to the system.

Claim 16. An electrical control system for an automobile pneumatic jack assembly according to claim 11 wherein said power relay is activated by low-current voltage when commanded by the operator and applies high-current voltage to said air compressor.

Claim 17. An automobile pneumatic jack assembly according to claim 16 wherein said power relay reduces the need to run high current carrying wiring to said control box, and allows the use of low-current components.

Claim 18. A control box for an electrical control system for an automobile pneumatic jack assembly comprising:

switching and indicating circuitry for the operator; and
a key switch that provides safety to ensure the system is not accidentally activated.

Claim 19. A control box for an electrical control system for an automobile pneumatic jack assembly according to claim 18 wherein said control box contains a plurality of three-position rocker switches to direct electrical power to said pneumatic solenoids when activated by the operator.

Claim 20. A control box for an electrical control system for an automobile pneumatic jack assembly according to claim 18 wherein said control box contains switching and indicating circuitry for the operator.